CO<sub>2</sub>Sustain<sup>®</sup>

# Increase the fizziness of Lemonade

## Objectives -

To increase
the fizziness of
lemonade whilst
using less CO<sub>2</sub>



### Sample Preparation

- Lemonade without CO<sub>2</sub>Sustain<sup>®</sup> were re-carbonated on an Armfield carbonator to 8g/l (sample A)
- Lemonade with 0.2g/l CO₂Sustain® were re-carbonated on an Armfield carbonator to 7.5g/l (sample B)
- Samples were filled into glass bottles and refrigerated overnight





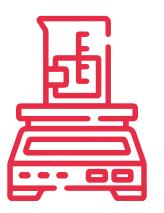
How would you describe the CO<sub>2</sub>Sustain® sample?

- A. Less fizzy than sample B (blank)
  - B. More fizzy than sample B
    - C. No difference

### Test Methods



The participants drank directly from the bottle. The bottles were then tested for carbon dioxide loss on pouring.



The 275ml sample bottle was poured gently into a glass vessel on an analytical balance.

The weight of CO<sub>2</sub> lost was recorded over a 30 minute period.

## Sensory Experience

All 8 people recorded the sample of CO<sub>2</sub>Sustain® as being fizzier



None of the panel recorded no difference

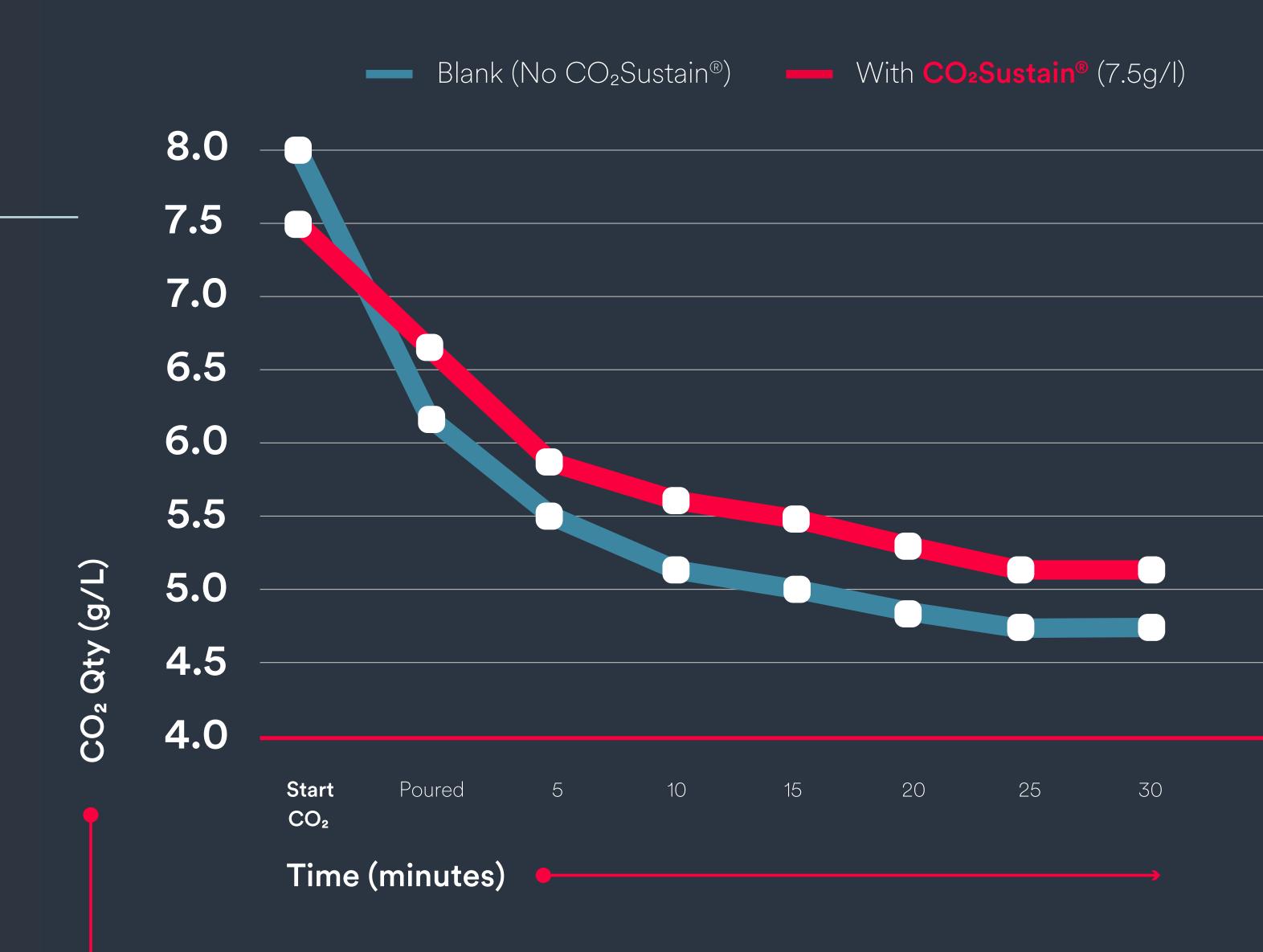


The graph shows that the sample with CO<sub>2</sub>Sustain<sup>®</sup> retained CO<sub>2</sub> more when poured.

At the point of pouring, the sample without CO<sub>2</sub>Sustain® dropped to 6.2g whereas the drink with CO<sub>2</sub>Sustain® only dropped to 6.4g.

The final level of carbon dioxide retained after 30 minutes was 0.5g extra with CO<sub>2</sub>Sustain<sup>®</sup> (11%).

### CO<sub>2</sub> Retention on Pouring



### Our Conclusion

Lemonade Carbonation Test

The addition of CO<sub>2</sub>Sustain® allows the Lemonade to be carbonated at a lower level whilst still giving the consumer a fizzier experience over 30 minutes.



# Thank you.

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